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(54) **LASER SCANNING OPTICAL SYSTEM**

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(57) Abstract:

PROBLEM TO BE SOLVED: To provide a laser scanning optical system which is free of a decrease in the quality of a formed image even when a beam pitch is converted.

SOLUTION: When the vertical-scanning-directional light emission intervals of plural light emission parts of a laser diode array 11 which emits plural laser beams are converted by a beam pitch conversion part 25 under the command of a CPU 24, a synchronous detecting means detects the horizontal-scanning-directional reference position of the light emission parts. On the basis of the detected reference position, a writing-out position correction part 27 corrects the writing-out position of each light emission part in the horizontal scanning direction and even when the light emission intervals of the light emission parts of the laser diode array 11 in the vertical scanning direction are converted, the image never deviates nor deforms in the horizontal scanning direction, so that the image of high quality can be formed with high resolution corresponding to the increased density of pixels.

